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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr John C. Gorecki on November 3, 2009.

3. The applicant has been amended as follow:

1. (Currently Amended) A method of assigning and allocating physical network resources to enable Layer 1 Virtual Private Networks (L1-VPNs) to be created within a communication network of the physical network resources, each of the L1-VPNs including dedicated physical network resources which are physically assigned to the L1-VPN and able to be controlled and provisioned for use exclusively within the L1-VPN, the method comprising the steps of: collecting information about available physical network resources used to implement the communication network;

designating a first subset of the available physical network resources as dedicated L1-VPN resources, the dedicated L1-VPN resources being physical resources on the communication

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network that are designated as being dedicated to be provisioned and used only within a first L1-VPN, at least a first portion of the dedicated L1-VPN resources being assigned to the first L1-VPN for exclusive use within the first L1-VPN; and

designating a second subset of the available physical network resources as shared L1-VPN resources, the shared L1-VPN resources being physical resources on the communication network that are allocated as available to be assigned for use in two or more separate L1-VPNs, at least a ~~second~~ first portion of the ~~second subset of the~~ shared L1-VPN resources being assigned to the first L1-VPN for exclusive use within the first L1-VPN to enable the ~~second~~ first portion of the ~~second subset of the~~ shared L1-VPN resources to be provisioned and used only within the first L1-VPN and at least a ~~third~~ second portion of the ~~second subset of the~~ shared L1-VPN resources being unassigned and able to be assigned to the first L1-VPN or a second L1-VPN for exclusive use within the first L1-VPN or second L1-VPN on demand;

receiving a request associated with the first L1-VPN for network resources; and

allocating assigned network resources from the first portion of the dedicated L1-VPN resources to fulfill the request;

wherein the step of allocating assigned network resources comprises determining current assignment information for the L1-VPN to determine which network resources have been assigned to the L1-VPN, and allocating network resources to the L1-VPN from the first portion of the dedicated L1-VPN resources if those network resources have not previously been allocated to the L1-VPN.

2. (Canceled)

3. (Previously Presented) The method of claim 1, wherein the resources assigned to the

first L1-VPN are dedicated to the first L1-VPN.

4. (Canceled)

5. (Previously Presented) The method of claim 1, wherein the first L1-VPN and second L1-VPN are a first group of L1-VPNs, and wherein the resources assigned to the first group of L1-VPNs may be used by one of the group members at a time.

6. (Previously Presented) The method of claim 1, further comprising designating a third subset of the resources as public L1-VPN resources.

7. (Original) The method of claim 1, wherein resources not designated as dedicated L1-VPN resources and not designated as shared L1-VPN resources are public L1-VPN resources.

8. (Original) The method of claim 1, further comprising the step of communicating information associated with the steps of designating the first subset of the resources as dedicated L1-VPN resources; and designating the second subset of the resources as shared L1-VPN resources to network elements to enable those resources to be allocated on the communication network.

9-11. (Canceled)

12. (Currently Amended) The method of claim 1 ~~claim 9~~, further comprising designating a third subset of the resources as public L1-VPN resources, and wherein the step of allocating assigned network resources comprises determining current assignment information for the L1-VPN to determine which of the ~~second~~ first portion of the ~~second subset of the~~ shared L1-VPN network resources have been assigned to the L1-VPN, and determining which of the assigned network resources are currently in use.

13. (Currently Amended) The method of claim 12, wherein the step of allocating further comprises selecting network resources from the ~~second~~ first portion of the ~~second subset~~ shared

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L1-VPN network resources that have been assigned to the L1-VPN and which are not currently in use to fulfill the request, and selecting public network resources to augment the assigned resources to fulfill the request if necessary.

14. (Currently Amended) The method of claim 13, wherein the first L1-VPN and second L1-VPN are a first group of L1-VPNs, and wherein the step of allocating comprises prioritizing between L1-VPNs to enable the first L1-VPN to obtain L1-VPN resources associated with the ~~second~~ first portion of the ~~second-subset~~ shared L1-VPN network resources that are currently in assigned to a third L1-VPN that is not part of the first group of L1-VPNs.

15. (Previously Presented) The method of claim 14, wherein prioritizing results in a transfer of the network resource from the third L1-VPN to the first L1-VPN.

16. (Canceled)

17. (Currently Amended) The method of claim 1 ~~claim 9~~, wherein the step of allocating is done on demand.

18. (Currently Amended) The method of claim 1 ~~claim 9~~, wherein the step of allocating allows network resources to be shared between multiple L1-VPN subscribers by allowing the same network resources to be allocated to more than one L1-VPN subscriber, one L1-VPN subscriber at a time.

19-20. (Canceled)

21. (New) An apparatus for assigning and allocating physical network resources to enable Layer 1 Virtual Private Networks (L1-VPNs) to be created within a communication network of the physical network resources, each of the L1-VPNs including dedicated physical network

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resources which are physically assigned to the L1-VPN and able to be controlled and provisioned for use exclusively within the L1-VPN, the apparatus comprising:

a processor containing control logic configured to:

collect information about available physical network resources used to implement the communication network;

designate a first subset of the available physical network resources as dedicated L1-VPN resources, the dedicated L1-VPN resources being physical resources on the communication network that are designated as being dedicated to be provisioned and used only within a first L1-VPN, at least a first portion of the dedicated L1-VPN resources being assigned to the first L1-VPN for exclusive use within the first L1-VPN;

designate a second subset of the available physical network resources as shared L1-VPN resources, the shared L1-VPN resources being physical resources on the communication network that are allocated as available to be assigned for use in two or more separate L1-VPNs, at least a first portion of the shared L1-VPN resources being assigned to the first L1-VPN for exclusive use within the first L1-VPN to enable the first portion of the shared L1-VPN resources to be provisioned and used only within the first L1-VPN and at least a second portion of the shared L1-VPN resources being unassigned and able to be assigned to the first L1-VPN or a second L1-VPN for exclusive use within the first L1-VPN or second L1-VPN on demand;

receive a request associated with the first L1-VPN for network resources; and

allocate assigned network resources from the first portion of the dedicated L1-VPN resources to fulfill the request.

wherein the step of allocating assigned network resources comprises determining current assignment information for the L1-VPN to determine which network resources have been assigned to the L1-VPN, and allocating network resources to the L1-VPN from the first portion of the dedicated L1-VPN resources if those network resources have not previously been allocated to the L1-VPN.

22. (New) The apparatus of claim 21, wherein the first L1-VPN and second L1-VPN are a first group of L1-VPNs, and wherein the resources assigned to the first group of L1-VPNs may be used by one of the group members at a time.

23. (New) The apparatus of claim 21, wherein the control logic is further configured to designate a third subset of the resources as public L1-VPN resources.

24. (New) The apparatus of claim 21, wherein resources not designated as dedicated L1-VPN resources and not designated as shared L1-VPN resources are public L1-VPN resources.

25. (New) The apparatus of claim 21, wherein the control logic is further configured to designate a third subset of the resources as public L1-VPN resources, and wherein the control logic configured to allocate assigned network resources is further configured to determine current assignment information for the L1-VPN to determine which of the first portion of the shared L1-VPN network resources have been assigned to the L1-VPN, and determine which of the assigned network resources are currently in use.

26. (New) The apparatus of claim 25, wherein the control logic configured to allocate is further configured to select network resources from the first portion of the shared L1-VPN network resources that have been assigned to the L1-VPN and which are not currently in use to fulfill the

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request, and select public network resources to augment the assigned resources to fulfill the request if necessary.

27. (New) The apparatus of claim 26, wherein the first L1-VPN and second L1-VPN are a first group of L1-VPNs, and wherein the control logic configured to allocate is further configured to prioritize between L1-VPNs to enable the first L1-VPN to obtain L1-VPN resources associated with the first portion of the shared L1-VPN network resources that are currently assigned to a third L1-VPN that is not part of the first group of L1-VPNs.

28. (New) The apparatus of claim 27, wherein prioritizing results in a transfer of the network resource from the third L1-VPN to the first L1-VPN.

4. Following is an examiner's statement of reasons for allowance:

With respect to claims 1, 3, 5-8, 12-15, 17-18, and 21-28 the prior art of record, individually or in combination, fails to teach, suggest or render obvious the claimed invention in combination with specific amended limitations as recited in claims 1, and 21.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy T. Nguyen whose telephone number is 571-272- 3929. The examiner can normally be reached on Monday - Friday 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **William Vaughn** can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/THANH TAMMY NGUYEN/
Primary Examiner, Art Unit 2444